

Human ORM1 Sandwich ELISA Kit Datasheet

For the quantitative detection of human ORM1 concentrations in serum, plasma, cell culture supernatants and urine.

General Information

Catalogue Number	KE00066
Product Name	Human ORM1 Sandwich ELISA Kit
Species cross-reactivity	Human
Range (calibration Range)	31.25-2000 pg/mL
Tested applications	Quantification ELISA

Database Links

Entrez Gene	5004
SwissProt	P02763

Kit Components & Storage

Microplate - antibody coated 96-well microplate (8 well × 12 strips)	1 plate	Unopened Kit: Store at 2-8°C for 6 months or -20°C for 12 months. Opened Kit: All reagents stored at 2-8°C for 7 days. Please use a new standard for each assay.
Protein standard - 4000 pg/bottle; lyophilized*	2 bottles	
Detection antibody (100X) - 120 µL/vial	1 vial	
HRP-conjugated antibody (100X) - 120 µL/vial - 120 µL/vial	1 vial	
Sample Diluent PT 3-ef - 30 mL/bottle. For Human serum and plasma	1 bottle	
Sample Diluent PT 4-ef - 30 mL/bottle. For Mouse/Rat serum, plasma and serum-free cell culture supernatants.	1 bottle	
Sample Diluent PT 5-ef - 30 mL/bottle. For tissue lysates.	1 bottle	
Detection Diluent - 30 mL/bottle	1 bottle	
Wash Buffer Concentrate (20X) - 30 mL/bottle	1 bottle	
Extraction Reagent - 30 mL/bottle	1 bottle	
Tetramethylbenzidine Substrate (TMB) - 12 mL/bottle	1 bottle	
Stop Solution - 12 mL/bottle	1 bottle	
Plate Cover Seals	3 pieces	

Product Description

KE00066 is a solid phase sandwich Enzyme Linked-Immuno-Sorbent Assay (Sandwich ELISA). The ORM1 ELISA kit is to be used to detect and quantify protein levels of endogenous ORM1. The assay recognizes human ORM1. An antibody specific for ORM1 has been pre-coated onto the microwells. The ORM1 protein in samples is captured by the coated antibody after incubation. Following extensive washing, another antibody specific for ORM1 is added to detect the captured ORM1 protein. For signal development, horseradish peroxidase (HRP)-conjugated antibody is added, followed by Tetramethyl-benzidine (TMB) reagent. Solution containing sulfuric acid is used to stop color development and the color intensity which is proportional to the quantity of bound protein is measurable at 450nm with the correction wavelength set at 630 nm.

Background

ORM1 (Orosomucoid 1), also named AGP1 (Alpha-1-acid glycoprotein 1) and AGP A, is an abundant plasma protein characterized by anti-inflammatory and immune-modulating properties. In human, two isoforms have been described, named ORM1 and ORM2. ORM1 is implicated in two main different functions: (1) as a lipocalin family member, it exerts a carrier activity especially for drug and lipid molecules; (2) being an acute phase protein (PMID: 23973664). ORM1 are increased in the patients with cancers, burnt injury or surgical operation (PMID: 10913518; PMID: 1646598). ORM1 could be a potential novel urinary biomarker for the early detection of chronic heart failure (PMID: 25215505).

Safety Notes

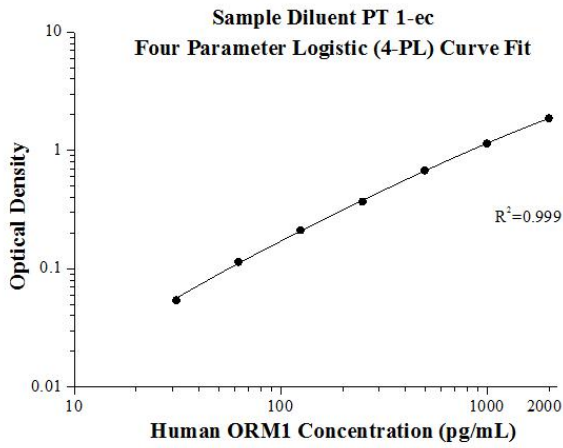
This product is sold for lab research and development use ONLY and not for use in humans or animals. Avoid any skin and eye contact with Stop Solution and TMB. In case of contact, wash thoroughly with water.

Assay Procedure Summary

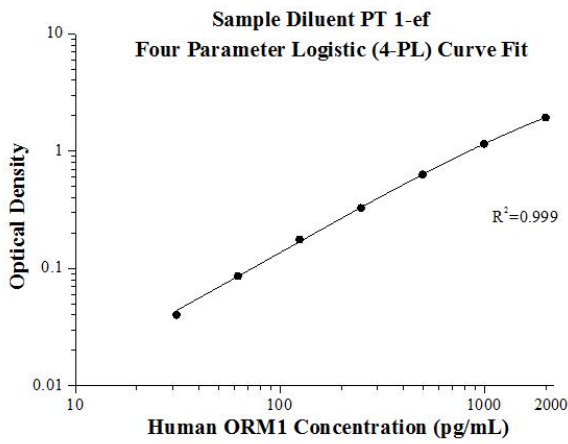
Step	Reagent	Volume	Incubation	Wash	Notes
1	Standard and Samples	100 µL	120 min	4 times	Cover Wells incubate at 37°C
2	Diluent Antibody Solution	100 µL	60 min	4 times	Cover Wells incubate at 37°C
3	Diluent HRP Solution	100 µL	40 min	4 times	Cover Wells incubate at 37°C
4	TMB Substrate	100 µL	15-20 min	Do not wash	Incubate in the dark at 37°C
5	Stop Solution	100 µL	0 min	Do not wash	-
6	Read plate at 450 nm and 630 nm immediately after adding Stop solution. DO NOT exceed 5 minutes.				

Example data

These standard curves are provided for demonstration only. A standard curve should be generated for each set of samples assayed.



(pg/mL)	O.D	Average	Corrected
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(pg/mL)	O.D	Average	Corrected
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Precision

Intra-assay Precision (Precision within an assay) Three samples of known concentration were tested 20 times on one plate to assess intra-assay precision.

Inter-assay Precision (Precision between assays) Three samples of known concentration were tested in 24 separate assays to assess inter-assay precision.

Intra-assay Precision				
Sample	n	Mean (pg/mL)	SD	CV%
1	20	147.4	8.9	6.0
2	20	431.6	15.3	3.5
3	20	1,500.4	51.8	3.5

Inter-assay Precision				
Sample	n	Mean (pg/mL)	SD	CV%
1	24	145.5	11.5	7.9
2	24	453.6	31.0	6.8
3	24	1,536.1	78.7	5.1